



NORTH CAROLINA FOOD SAFETY & DEFENSE TASK FORCE

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Definition of Agroterrorism

The deliberate introduction, use, or threatened use, of a **chemical, biological, radiological, nuclear, or explosive agent** against one or more components of the food or agriculture sectors, with the goal of causing mortality and morbidity, generating fear, precipitating economic loss, or undermining sector stability and confidence in government





We assess agroterrorism to be
LOW risk, HIGH impact threat

No imminent threat to the US Food and
Agriculture sector





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How does the FBI frame its Food Defense mission?

We are at War

A globally organized and structured enemy desires to kill millions of people and destroy our culture.

The enemy is committed, resourceful, patient, and persistent

The enemy recognizes our economy as a target and studies its vulnerability.

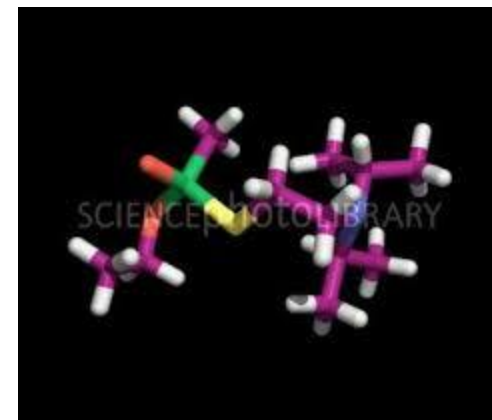
Food Systems and Agriculture are significantly valuable targets.





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How does the FBI frame its Food Defense mission?





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What role does Law Enforcement have in Food Defense?

- Authorities to Investigate crimes and acts of terror
 - Collect evidence

- Ability to develop and employ intelligence sources
 - Threat Assessments

- Organizational Structure

- Manpower

- Crime Laboratories

- Response Capabilities:
 - Investigators
 - Evidence or Forensic Teams
 - Hazardous Materials experts
 - Tactical Officers





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What role does Law Enforcement have in Food Defense?

Joint Investigations / Interviews

- Victims do not have to be interviewed multiple times
- Agencies better understand the different types of questions public health and law enforcement need **to** ask





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The Importance of Collaboration.

The response to an intentional contamination incident or threat requires a high level of cooperation among partners:

- Identify threat, the suspect food item and agent
- Minimize spread of incident
- Prevent follow-on attacks
- Prevent public panic
- Conduct an investigation
- Apprehend those responsible





Summary

Law Enforcement, food industry, regulatory and public health partners must establish relationships and information exchange procedures in advance of an intentional contamination event or threat:

- Foster cooperation for an efficient response and successful investigation
- Understand the information needs and concerns about disclosure of sensitive information of each stakeholder
- Know the roles, capabilities & resources of each agency





Threat Overview

- Many threats are vague and non-specific, lacking:
 - Targets
 - Method/delivery routes
 - Contaminant
- Threats lack sophistication
 - Portray ineffective tactics
 - No indication of technical skill or knowledge of systems
- Limited actionable intelligence
 - Hampers investigation, analysis





Threat May Grow

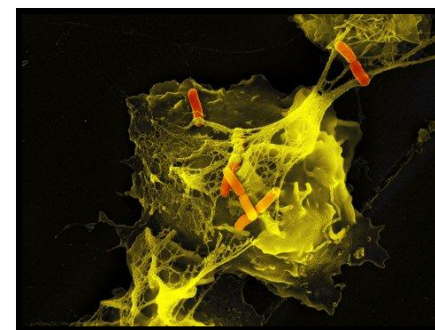
- Terrorists have acknowledged the economic effects
- Many foreign animal diseases are endemic to regions where terrorists are known to be
- Low cost, little technical expertise required to acquire/produce agents
- Agents are easy to disseminate, no need to weaponize
- Recent food incidents may inspire attacks
- Food and agriculture are soft targets
- May be less morally objectionable than attacking people for some actors





Why Target Food/Ag

- Difficult to distinguish deliberate, accidental or natural outbreak – whether food, animal, or plant
 - Plausible deniability
- Relatively easy to access and transport pathogen
 - Small amount of animal virus can have huge affect
- Animal pathogens infectious and transmissible
 - Potential for a single animal to start epidemic
 - Multiple outbreak scenario





Why Target Food/Ag

- Widespread publicity highlighting vulnerability, economic and potential political impacts
- Availability and exploitation of open scientific information relating to acquisition and production of agents
 - Provide framework and shorten time for capability development
- Contaminating Food has tremendous public health consequences
 - Short turnaround time, short shelf-life
 - Distribution is nationwide and rapid





Why It's High Impact

- Economic effects
 - Export restrictions, lost markets
 - Direct costs – treatment, prophylaxis, decontamination, depopulation
 - Lost revenues, productivity, wages
 - Processing, transportation, distribution, marketing, tourism, etc.
 - Disrupted supply lines
- Targeting food supply results in
 - Fear, panic, decreased faith in government
- Concentration
 - Regionally and on farms





Mad Cow Disease

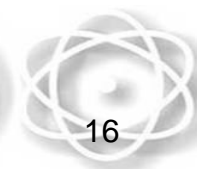
- US Mad Cow Disease - 23 December 2003
 - First US case, only one cow
- Affected meat plants in Texas, Nebraska, Kansas and Colorado
 - More than half of beef cattle revenues each year
 - Meat had been sent to food and commercial processors before disease was detected
- Export
 - Export bans – South Korea four years later (23 April 2007) resumed importation of US beef
 - Exports to 4 countries (over 90% of US exported beef) dropped from \$3 billion (2003) to \$467 million





Foot And Mouth Disease

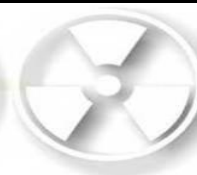
- United Kingdom FMD Outbreak - 2001
 - Cost estimated at \$15 billion
 - \$4.5 billion for slaughter compensation, disposal & cleanup
 - 4 million cows & sheep culled
 - 1.3 million at infected farms
 - 2.5 million at 8,000 other premises (killed to control disease spread)





Exotic Newcastle Disease

- First detected 1 October 2002 in backyard chickens in Los Angeles and adjacent county
 - Over 300,000 premises surveyed, 19,058 quarantined
 - California imposed statewide exhibition ban
 - 3.5 million commercial birds destroyed
 - Nearly 150,000 pet/hobby birds destroyed
 - 30 countries banned imports of California poultry and poultry feed
- Costs
 - \$160 million – direct response costs
 - \$167 million – US trade losses
 - \$27 million – Loss due to eggs not laid
 - \$17 million – Feed sales losses
 - \$3.5 million – Poultry labor wages





Plant Targets

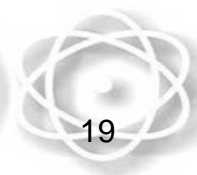
- Food crops
 - Corn, wheat, soybean, citrus, sugarcane
- Fiber
 - Cotton
 - Pulp & wood products
- Hundreds of foreign pathogens are a potential threat to US agriculture
- Plant diseases common in South East Asia and Middle East pose threat to US crops





Crop Variables

- Successful use of anti-crop agents depends on many factors:
 - Hardiness of agent
 - Amount of agent applied
 - Method of application
 - Availability of agent
- Spread of plant pathogens is highly dependent upon variables/meteorological conditions:
 - Season
 - Temperature
 - Precipitation
 - Wind
 - Growth phase of the plants





Where to Find Information

The Original The Poor Man's JAMES BOND VOL. 1 Kurt Saxon

~ [Kurt Saxon](#) ☒ (Author)

★★★★☆ ☒ ([17 customer reviews](#))

List Price: ~~\$34.95~~

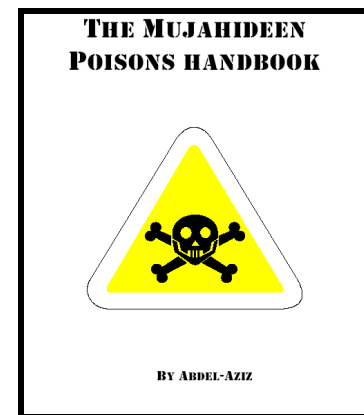
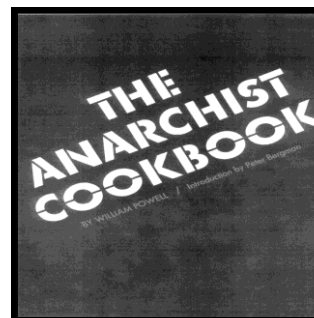
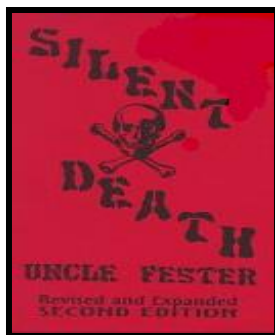
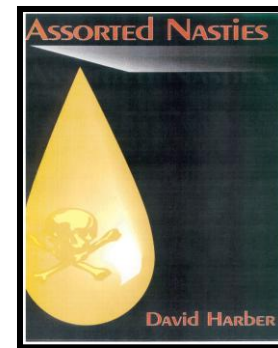
Price: **\$23.07** & eligible for **FREE Super Save** over \$25. [Details](#)

You Save: **\$11.88 (34%)**

In Stock.

Ships from and sold by **Amazon.com**. Gift-wrap available

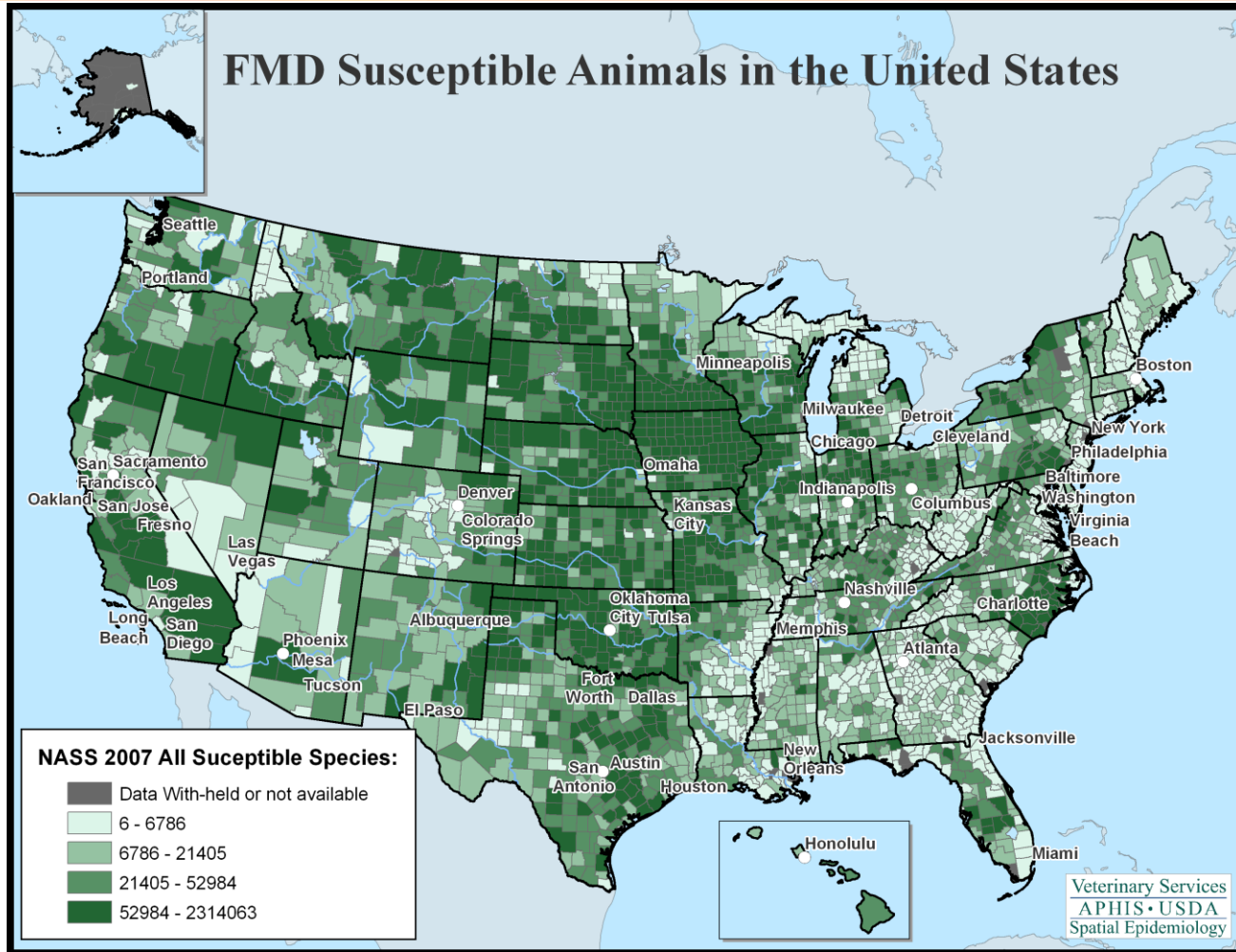
Want it delivered Wednesday, March 24? Order it in minutes, and choose **One-Day Shipping** at checkout. [De](#)





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FMD Susceptibility





Restaurant Targeted

- Oregon, 1984
 - Bagwan Shree Rajneesh cult
 - 751 people ill
 - Salmonella typhimurium
 - Intentional
 - Salad bar in at least 8 restaurants
 - Not attributed to terrorism until much later after a cult member confessed
- More recently
 - In June 2005 Islamic Web site posting warned Muslims to avoid restaurants in Iraq frequented by Americans because of a food poisoning plot.
 - April 2008- Two Palestinians arrested only days before planning to poison diners at the restaurant where they worked in Israel.





2006 Spinach Contamination

- Sept. 8th – Wisconsin notified CDC of Escherichia coli O157:H7 illness cluster
- Sept. 15th - FDA issued consumer advisory not to eat fresh spinach due to possible E. coli O157:H7 contamination
- 205 confirmed illnesses and 3 deaths 26 states
 - Spinach processed/packaged by CA plant
 - Contamination traced back to spinach fields, but no definitive source of contamination identified to date
- Estimate \$74 million loss to spinach growers
- Brought culture change to industry's irrigation practices
 - Many CA growers now voluntarily have routine “surveillance” samples analyzed prior to distribution





Vegetables Poisoned

- July 2010, Australia
- 4 million tomato seedlings were poisoned
- Herbicide was injected into the irrigation system at a nursery
 - 4th incident in eight years
 - Some of the plants had already been transplanted on farms
- Estimated \$20.3 million in damage
- Prices likely to spike





New Orleans/Hurricane Katrina

- New Orleans is a major gateway for imports/exports
 - Oil imports
 - Corn, soybean, wheat and rice exports
- Katrina halted the flow of agriculture trade
 - Falling commodity prices in interior states
 - Competition for barge traffic on Mississippi
- Estimated \$2 billion loss for farmers unable to ship their goods by barge





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Who Represent the Threat

- International
- Domestic
- Animal/Environmental Groups





International Terrorists

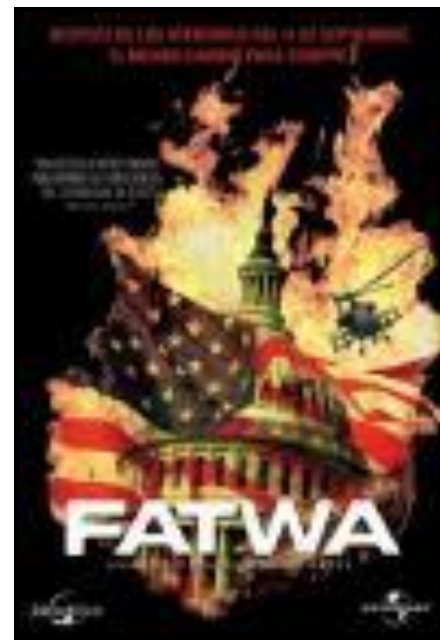
- December 2003:
 - "Mad cow disease cost the United States \$27 billion"
 - "This disease or viruses, could easily be transported to the United States."
- Al-Qa'ida's goal of weakening the US economy could be achieved through several biological attacks:
 - "an agricultural disease, a cattle disease, a poultry disease, and an epidemic disease."





Fatwa Issued in 2003

- “A letter (message) of judgment in the use of weapons of mass destruction against the infidels”
- “Theologians . . . legalized the use of germ warfare . . . They also legalized **poisoning the enemies’ water sources**. . . . their **livestock should be killed**. . . .”
- “If it is proven by specialized militants that the infidels will not be expelled [from the lands of Muslims] without the **use of weapons of mass destruction**, it becomes completely legal to use such weapons to expel such forces and **destroy cultivated land**.”





Documents Recovered

B.W.

intentionally use of living org. or their toxic products in order to cause death/disability/damage to man, animals, plants

B.W. agents classified as:

1. Microorganisms
2. Toxins
3. Vectors of diseases.
4. Animal/Plant Pests.

B.W. agents are:

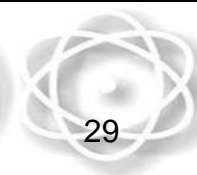
1. Antipersonnel
2. Anti food. (Animal/Crops)

Route of Entry into the Body

1. Respiratory / Aerosol.
2. Oral → contaminated food/water
3. Percutaneous → Insect Vectors
Fleas
Ticks
Mosquitoes

Factors Affecting the EFFECTIVENESS

1. Sun light
2. Humidity
3. Air pollution
4. Temperature
5. Wind speed.
6. Atmospheric conditions
7. Time





Documents Recovered

ANTI PERSONNEL				
Disease	Microorg	Time, Days, Effect	Death %	Mode of Dissemination
PLAGUE	<i>Pasteurella pestis</i>	3-4	30-100	Aerosol
Anthrax	<i>B. anthracis</i>	1-4	95-100	Aerosol
Glanders	<i>Actinobacillus mallei</i>		10-80	Water
Cholera	<i>Vibrio comma</i>			Aerosol
Tularemia	<i>Francisella tularensis</i>	2-5	0-60	Tick/Mammals
Psittacosis	<i>C. psittaci</i>		10-100	

Anti Animals
Foot-Mouth Disease
Rinderpest Cattle plague
Newcastle
Hog cholera
Fowl plague
Aspergillosis

ANTI PLANTS
Rice Blast
Maize Rust
Black stem Rust of cereals
Rice blight
Coen blight

Antipersonnel Agents

ability to deliver viable, virulent org. on a susceptible target.

Are not necessarily Lethal to obtain Military objectives that incapacitate without causing Death.

Antifood Agents

used against Crops / animals resulting serious shortage of Medicinal plants, Leather, Wool

Has long term strategic application.



New York City Water Plot

- 2009
 - AQ propaganda video included a statement that 3 ounces of dioxin could poison all of NYC's drinking water
 - Video inspired a Web forum discussion and solicitation for ideas on water supply attacks



Global Security Newswire

by National Journal Group

Daily news on nuclear, biolo
chemical weapons, terror
related issues.

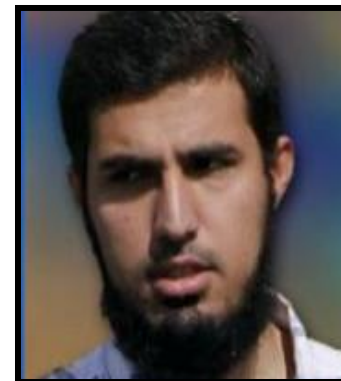
Stolen NYC Water Supply Map Raises Concerns

Thursday, Feb. 23, 2006



Bryant Vinas and Najibullah Zazi

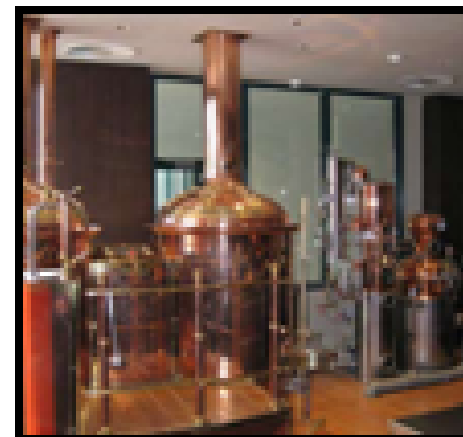
- Bryant Neal Vinas - 2009
 - Plead guilty to providing material support to a terrorist organization
 - NYC transit system and Long Island Railroad
 - (U//FOUO) His expert advice and assistance derived from his personal knowledge of the transit system and LIRR
- Najibullah Zazi – 2009
 - (U//FOUO) Transported explosives to NYC with the intention of conducting a martyrdom attack on the subway lines in Manhattan
 - (U//FOUO) Lived in Denver where he acquired the explosives and related material
 - (U//FOUO) Drove a rental car to NYC but abandoned the plan after he became aware of increased law enforcement scrutiny
 - Flew back to Denver and was arrested





Technology

- Food contamination agents could be cultured and scaled up using simple technology
- Dual-Use Technology
 - Low-tech adequate
 - Relatively inexpensive
 - Difficult to track – many legitimate uses
- Pathogens for humans and animals conceivably could be obtained from veterinary and vaccine production facilities worldwide





Collaboration

- Encourage exchange of information and possible collaborative CT projects with international trading partners
- Sharing threat information between IC/LE and food agencies leads to increased coordination and communication for prevention and response
- Implementing food defense security measures is voluntary and presents a challenge for a large portion of industry due to limited resources





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Strategies for Collaboration

Develop and foster on-going relationships among partners before an incident to:

- Understand roles and responsibilities and concerns
- Establish mechanism for exchange of information

Outreach by government/LE/academia:

- Workshops (Domestic & International)
- Develop guidance and training
- Joint agency incident management training (to have common terminology and response roles)

Conduct joint exercises

- Learn/understand each entities roles and responsibilities in intentional contamination incident
- Include public health agencies, industry, law enforcement, regulatory agencies, trade groups
- Include risk communications/media component
- Exercise all levels of involvement, from plant worker to first responder to senior officials.
- Tool: FREE-B exercise kit





FSMA

- Food Safety Modernization Act –
 - The FDA Food Safety Modernization Act (FSMA), was signed into law by President Obama on January 4, 2011. It aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it.





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QUESTIONS ???

SA James J. Page Jr.
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FBI